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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,534	11/08/2001	Philip W. Eggleston	EGGL-0001D2	9272

7590 11/13/2003

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EXAMINER

PEAVEY, ENOCH E

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 11/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/005,534	EGGLESTON, PHILIP W.	
	Examiner	Art Unit	
	Enoch E Peavey	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,10-15 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 3,4,8,9,16 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

I. Applicant's election with traverse of the claims of Group I in Paper No. 7 is acknowledged. The traversal is on the ground(s) that the Examiner has required an improper restriction. This is not found persuasive.

A) Applicant contends that the Examiner has not provided an appropriate explanation as to why the Groups are separately classified. Examiner disagrees it is clearly set out that rotary valves are classified according to US Manual of classification in class 251. Group II does not claim a rotary valve at all but instead claims a method of constructing a seal cartridge, which in accordance with the US Manual of classification is classified in class 29. Further an explanation is set out as to why the inventions are distinct.

B) Applicant also contends that the Examiner has not provided a materially different method from what is claimed in claim 23. Examiner disagrees. The Applicant has misinterpreted the Examiner's reason. Examiner has stated that there **need not be any forced exerted** on the first seal cartridges deforming it at all. An absence of such forces makes it materially different from what is claimed. Examiner suggests that the seal cartridge could be performed with the desired shape, i.e. with the elliptical depression, prior to inserting the annular seal, in which case there would be no need to form the circularly configured depression and later deform it to become elliptical.

C) Applicant further argues that the Examiner has not suggested any specific manner for making the cartridge in a different manner. Examiner disagrees. Examiner clearly stated on page 1, paragraph 2 of the previous office action that the *seal cartridge could be formed with its desired shape*, instead of exerting forces to change the circularly configured depression to an elliptical shape. While the Examiner is required to be specific he is not required to give a detailed

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explanation of the processes involved in performing components, such processes are well known in the art.

D) Finally Applicant argues that searching both groups (inventions) would not be a serious burden on the Examiner. Examiner disagrees. Searching both groups would require the Examiner to search an area outside of his expertise.

E) Claims 1-32 are pending in the application. None have been canceled. Attorney makes reference to a possible preliminary amendment canceling certain claims, and ask that Examiner place claims back into the original application. This request is moot, there has been no preliminary amendment received in the file.

F) The requirement is still deemed proper and is therefore made FINAL.

G) Claims 23-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Claim Rejections - 35 USC § 112

II. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A). Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

i. Claim 5 recites the limitation "said cavity" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

III. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

A) Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubertson (US Patent Number 4,286,769).

i. Hubertson discloses a rotary valve comprising a body (6, 7, 8), a seal structure carried by the body for forming an elliptical sealing surface (see Fig. 2), and a rotating disc (1) having an elliptical periphery (4) that engages the elliptical seating surface.

ii. The seal structure has opposing annular members (15a, 15b) defining a cavity (18). An annular seal member (12) is received in and protrudes from the cavity for engagement with the elliptical periphery of the disc.

C) Claims 14, 15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Scobie et al. (US Patent Number 4,659,064).

i. Scobie et al. disclose a rotary valve with body (12), seal structure (28) carried by the body, a disc (32) rotating into and out of engagement with the seal structure, and abutting fixed geometry structures to hold the disc in a centered position (see the last sentence of the abstract).

ii. The fixed geometry includes first and second guide structures (36 and 38) spaced apart along the rotation axis of the disc. The disc has mounting structure (42, 46) abutting the first and second guide structures.

- iii. The first and second guide structures are rotatably coupled to the mounting structure.

Claim Rejections - 35 USC § 103

IV. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A) Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hubertson.

i. Hubertson discloses a rotary valve comprising a body (6, 7, 8), a seal structure carried by said body, for forming an elliptical sealing surface (see Fig. 2), and a rotating disc (1) having an elliptical periphery (4) that engages the elliptical seating surface. The seal structure has opposing annular members (15a, 15b) defining a cavity (18).

ii. An annular seal member (12) is received in and protrudes from the cavity for engagement with the elliptical periphery of the disc. The annular seal is metal and is deformed to the elliptical configuration in response to engagement of the elliptical periphery of the disc (see column 4, lines 29-37).

iii. Hubertson fails to disclose the cavity as elliptical. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the cavity elliptical, since the shape of the cavity in lieu of the annular cavity used in the reference solves no stated problem and would be an obvious matter of design choice within the skill in the art.

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iv. In Re Kuhle, 188 USPQ 7 (CCPA 1975). That is, in the embodiment where the elliptical periphery of the disc deforms the annular seal into an elliptical seal, the shape of the remainder of the cavity is irrelevant.

B) Claims 6, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubertson as applied to claim 1 above, and further in view of Scobie et al.

i. Hubertson fails to disclose the fixed geometry structure. Scobie et al. disclose a similar rotary valve with body (12), seal structure (28) carried by the body, a disc (32) rotating into and out of engagement with the seal structure, and abutting fixed geometry structures.

ii. The fixed geometry includes first and second guide structures (36 and 38) spaced apart along the rotation axis of the disc. The disc has mounting structure (42, 46) abutting the first and second guide structures.

iii. The first and second guide structures are rotatably coupled to the mounting structure. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the fixed, abutting geometry structure of Scobie et al. the rotary valve of Hubertson in order to hold the disc in a centered position as taught by Scobie et al. (see the last sentence of the abstract).

C) Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubertson as applied to claim 1 above, and further in view of Bylsma (US Patent Number 4,181,288).

i. Hubertson fails to disclose the actuator support structure.

ii. Bylsma discloses a similar rotary valve with an actuator support structure (42). The actuator support structure is a one-piece, U-shaped construction with spaced leg portions (43) for removably securing the support to the valve body.

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iii. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the actuator support of Bylsma in the rotary valve of Hubertson in order to provide a protective cover for the actuator as taught by Bylsma (see column 2, lines 21-23).

D) Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubertson in view of Bylsma.

i. Hubertson fails to disclose the actuator support structure. Bylsma discloses a similar rotary valve with an actuator support structure (42).

ii. The actuator support structure is a one-piece, U-shaped construction with spaced leg portions (43) for removably securing the support to the valve body.

iii. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the actuator support of Bylsma in the rotary valve of Hubertson in order to provide a protective cover for the actuator as taught by Bylsma (see column 2, lines 21-23).

Allowable Subject Matter

V. Claims 3, 4, 8, 9, 16, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A) The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or suggest deforming an annular seal into an elliptical seal by placing it into elliptical cavity of a seal structure in combination with the other elements of claims 1-3.

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B) The prior art of record does not disclose or suggest the shaft or guide structure having enlarged portions abutting the flat portions of the disc mounting structure in combination with the other elements of claims 1, 6, and 7, or claims 14 and 15.

Conclusion

VI. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gachot, Holtgraver, Raymond, Jr., Hubertson, and Yamamoto et al. disclose similar rotary valves.

VII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is 305 1977. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (703) 308- 3179. The fax phone number for the organization where this application or proceeding is assigned is 305 3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 1113.

Enoch E Peavey
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November 11, 2003

